Record Nr. UNINA9910778275003321 Autore Blackburn Simon R. Titolo Enumeration of finite groups // Simon R. Blackburn, Peter M. Neumann, Geetha Venkataraman [[electronic resource]] Cambridge:,: Cambridge University Press,, 2007 Pubbl/distr/stampa 1-107-18521-1 **ISBN** 1-281-15366-4 9786611153663 1-139-13345-4 0-511-35537-8 0-511-35487-8 0-511-35429-0 0-511-54275-5 0-511-35589-0 Descrizione fisica 1 online resource (xii, 281 pages) : digital, PDF file(s) Collana Cambridge tracts in mathematics;; 173 Disciplina 512.23 Soggetti Finite groups Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Includes bibliographical references and index. Nota di bibliografia Some basic observations -- Preliminaries -- Enumerating p-groups: a Nota di contenuto lower bound -- Enumerating p-groups: upper bounds -- Some more preliminaries -- Group extensions and cohomology -- Some representation theory -- Primitive soluble linear groups -- The orders of groups -- Conjugacy classes of maximal soluble subgroups of symmetric groups -- Enumeration of finite groups with abelian Sylow subgroups -- Maximal soluble linear groups -- Conjugacy classes of maximal soluble subgroups of the general linear groups -- Pyber's theorem: the soluble case -- Pyber's theorem: the general case --Enumeration within varieties of abelian groups -- Enumeration within small varieties of A-groups -- Enumeration within small varieties of pgroups. Sommario/riassunto How many groups of order n are there? This is a natural question for

anyone studying group theory, and this Tract provides an exhaustive

and up-to-date account of research into this question spanning almost fifty years. The authors presuppose an undergraduate knowledge of group theory, up to and including Sylow's Theorems, a little knowledge of how a group may be presented by generators and relations, a very little representation theory from the perspective of module theory, and a very little cohomology theory - but most of the basics are expounded here and the book is more or less self-contained. Although it is principally devoted to a connected exposition of an agreeable theory, the book does also contain some material that has not hitherto been published. It is designed to be used as a graduate text but also as a handbook for established research workers in group theory.